

**UTILITY PATENT APPLICATION TRANSMITTAL  
(Small Entity)***(Only for new nonprovisional applications under 37 CFR 1.53(b))*Docket No.  
500451-1005

Total Pages in this Submission

**TO THE COMMISSIONER FOR PATENTS**Mail Stop Patent Application  
P.O. Box 1450

Alexandria, VA 22313-1450

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**APPARATUS AND METHOD FOR PHOTOVOLTAIC ENERGY PRODUCTION BASED ON INTERNAL CHARGE EMISSION IN A SOLID-STATE HETEROSTRUCTURE**

and invented by:

Eric W. McFarland

If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 10/057,223

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.:

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.:

Enclosed are:

**Application Elements**

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 66 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications *(if applicable)*
  - c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*
  - d. ☐ Reference to Sequence Listing, a Table, or a Computer Program Listing Appendix
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings *(if filed)*
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

# UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

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## Application Elements (Continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 USC 113)
- a. ☒ Formal      Number of Sheets      18
- b. ☐ Informal      Number of Sheets      \_\_\_\_\_
4. ☒ Oath or Declaration
- a. ☐ Newly executed (original or copy)      ☐ Unexecuted
- b. ☒ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional application only)
- c. ☒ With Power of Attorney      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☒ Incorporation By Reference (usable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ CD ROM or CD-R in duplicate, large table or Computer Program (Appendix)
7. ☐ Application Data Sheet (See 37 CFR 1.76)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all must be included)
- a. ☐ Computer Readable Form (CFR)
- b. ☐ Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statement(s) Verifying Identical Paper and Computer Readable Copy

## Accompanying Application Parts

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(B) Statement (when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement/PTO-1449      ☐ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☒ Certificate of Mailing
- ☐ First Class      ☒ Express Mail (Specify Label No.): EV 227163303 US

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

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17. ☒ Applicant claims small entity status. See 37 CFR 1.27.

☐ (Optional) Small Entity Statement(s) - Specify Number of Statements Submitted:

18. ☐ Additional Enclosures (please identify below):

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19. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

***An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.***

**UTILITY PATENT APPLICATION TRANSMITTAL  
(Small Entity)**

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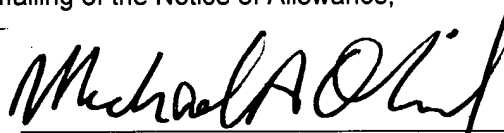
**Fee Calculation and Transmittal**

**CLAIMS AS FILED**

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	32	- 20 =	12	x \$9.00	\$108.00
Indep. Claims	32	- 3 =	29	x \$43.00	\$1,247.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$385.00
OTHER FEE (specify purpose) _____					\$0.00
TOTAL FILING FEE					\$1,740.00

- ☒ A check in the amount of **\$1,740.00** to cover the filing fee is enclosed.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **50-0856** as described below.
- ☐ Charge the amount of \_\_\_\_\_ as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated: 12/31/03

  
Signature

Michael A. O'Neil  
Michael A. O'Neil, P.C.  
5949 Sherry Lane, Suite 820  
Dallas, TX 75225

CC: Leonard Judson, Esq.

500451-1005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Continuation application based on prior application:

Inventors: Eric W. McFarland

Serial No.: 10/057,223

Filing Date: January 25, 2002

Group No.: 1753

Examiner: Alan D. Diamond

For: APPARATUS AND METHOD FOR PHOTOVOLTAIC ENERGY  
PRODUCTION BASED ON INTERNAL CHARGE EMISSION IN A  
SOLID-STATE HETEROSTRUCTURE

M/S: PATENT APPLICATION  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR FILING A CONTINUATION APPLICATION**  
**UNDER 37 C.F.R. § 1.63**

This is a request for filing a continuation application under 37 C.F.R. § 1.63, of pending prior application Serial No. 10/057,223 filed on January 25, 2002.

Enclosed is a copy of the latest signed prior application and Declaration and Power of Attorney.

A Verified Statement to establish small entity status under 37 C.F.R. § 1.9 was filed in the prior application and such status is still proper and desired.

The inventor of the invention being claimed in this application is Eric W. McFarland.

The prior application has been assigned to Adrena, Inc.

I hereby verify that the attached papers are a true copy of prior application Serial No. 10/057,223 filed January 25, 2002, and further that all statements made herein are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Before calculating the filing fee, please enter the Preliminary Amendment attached hereto.

The filing fee is calculated as below:

For	Number Filed	Number Extra	Rate	Fee
Total Claims	32- 20	12	\$9.00	\$108.00
Independent Claims	32- 3	29	\$43.00	\$1,247.00
Basic Filing Fee				\$385.00
Multiple Dependent Claim	0	0	\$260.00	\$0.00
<b>TOTAL FILING FEE</b>				<b>\$1,740.00</b>

Enclosed is a check in the amount of \$1,740.00 in payment of the filing fee. If any additional fees are owed, the commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account No. 50-0856.

Enclosed is a Preliminary Amendment.

The Power of Attorney in the prior application is to Michael A. O'Neil. The Power appears in the original papers in the prior application.

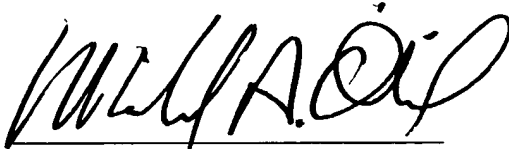
We request that all correspondence be addressed to:

Michael A. O'Neil  
Michael A. O'Neil, P.C.  
5949 Sherry Lane, Suite 820  
Dallas, Texas 75225


and that all telephone calls be directed to Mr. O'Neil at (214) 739-0088.

Respectfully submitted,

MICHAEL A. O'NEIL, P.C.

A handwritten signature in black ink, appearing to read 'Michael A. O'Neil', written over a horizontal line.

Michael A. O'Neil  
Registration No. 23,007

Date: December , 2003  
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(214) 739-0088  
(214) 739-8284 (Fax)